

WHAT IS CLAIMED IS:

1. An occupant determination device for a vehicle seat comprising:
a load sensor provided at a seat body;
a controller for calculating a detection load value based on a load value output from the load sensor and for determining an occupant sitting on the vehicle seat by comparing the detection load value and a predetermined threshold value;
a determining means for determining whether or not a child restraint system is equipped on the vehicle seat based on a variation of the detection load value; and
a detecting means for detecting whether or not the vehicle is stopped; wherein when a vehicle stop condition is not detected by the detecting means, the determining means does not determine whether or not the child restraint system is equipped on the seat.
2. An occupant determination device according to claim 1, wherein the detecting means detects the vehicle stop condition based on at least one of an ignition switch signal, a shift position signal, a parking switch signal, a courtesy switch signal, and a vehicle speed pulse.
3. An occupant determination device according to claim 2, wherein the determining means determines whether or not the child restraint system is equipped on the vehicle seat based on the variation of

the detection load value from a maximum detection load value detected after a seatbelt is fastened.

4. An occupant determination device for a vehicle seat comprising:
a plurality of load sensors provided at a seat body,
a controller for calculating a detection load value by summing up load values output from the plurality of load sensors and for determining an occupant sitting on the vehicle seat based on the detection load value;
a determining means for determining whether or not a child restraint system is equipped on the vehicle seat based on a variation of the detection load value; and
a detecting means for detecting whether or not the vehicle is stopped;
wherein when a vehicle stop condition is not detected by the detecting means, the determining means does not determine whether or not the child restraint system is equipped on the seat.

5. An occupant determination device according to claim 4, wherein the detecting means detects the vehicle stop condition based on at least one of an ignition switch signal, a shift position signal, a parking switch signal, a courtesy switch signal, and a vehicle speed pulse.

6. An occupant determination device according to claim 5, wherein the determining means determines whether or not the child restraint system is equipped on the vehicle seat based on the variation of

the detection load value from a maximum detection load value detected after the seatbelt is fastened.

7. An occupant determination device according to claim 1, wherein the controller is connected to an ignition switch and a seatbelt switch.

8. An occupant determination device according to claim 7, wherein when the ignition switch is determined to be ON, or the seatbelt switch is determined to be not fastened, or the child restraint system is determined not to be equipped on the vehicle seat, it is determined whether an occupant sitting on the seat is an adult or a child.

9. An occupant determination device according to claim 8, wherein when the detection load value is equal to or greater than the predetermined threshold value, it is determined that the occupant sitting on the seat is an adult.

10. An occupant determination device according to claim 9, wherein when the detection load value is smaller than the predetermined threshold value, it is determined that the occupant sitting on the seat is a child.

11. An occupant determination device according to claim 4, wherein the controller is connected to an ignition switch and a seatbelt switch.

12. An occupant determination device according to claim 11, wherein when the ignition switch is determined to be ON, or the seatbelt switch is determined to be not fastened, or the child restraint system is determined not to be equipped on the vehicle seat, it is determined whether an occupant sitting on the seat is an adult or a child.

13. An occupant determination device according to claim 12, wherein when the detection load value is equal to or greater than the predetermined threshold value, it is determined that the occupant sitting on the seat is an adult.

14. An occupant determination device according to claim 13, wherein when the detection load value is smaller than the predetermined threshold value, it is determined that the occupant sitting on the seat is a child.